Over the past several years, the biomed world transformed into the healthcare technology management (HTM) field. The transition was painstakingly difficult and fraught with growing pains as biomeds scrambled to evolve and build multidisciplinary skills and partnerships to step up into their new roles. Looking forward, AAMI’s 50th anniversary marks a call to action for the field to build capability, competence, and capacity in meaningful ways to continue meeting the needs of the evolving healthcare industry.

Educating, Recruiting, and Retaining Capable Professionals

Capability is an individual’s ability or aptitude to learn a given skill. In the same way that a “B” student can become an “A” student, biomeds can learn skills that reflect changing healthcare needs. The HTM field needs to build capability in three areas: education, recruitment, and retention.

Changes in biomedical equipment technician (BMET) and clinical engineering (CE) education programs, as well as continuing education plans, are needed for HTM to transform and meet 21st century healthcare needs. Programs across the country are working to enhance their programs to meet new needs. The move toward ABET (Accreditation Board for Engineering and Technology) recognition of BMET programs and an emphasis on clinical practice experience in HTM and CE programs indicates this shift. HTM professionals have become more active on the boards for these programs.

Continuing education—with a keen eye for balance of breadth and specialization—is the dual responsibility of HTM professionals and their organizations. All HTM professionals need to have a personal development plan (PDP) to drive their career progression and keep their skills current. Organizations and HTM managers also need to be invested, both in spirit and financially, in the staff’s PDPs to ensure that they have the right mix of professional skills and technical competencies to meet their program’s mission. Managers will need to build a strong program and gain the support of their organization to recruit and retain appropriate staff in order to maintain and grow the capabilities needed for their tactical and strategic goals.

Evaluating Competencies and Prioritizing Certification

The future of HTM hinges upon our ability to build and evaluate competencies. Growing the HTM field’s competencies and ability to provide support that improves patient safety and quality of care requires increasing core competencies in information technology (IT), informatics, imaging modalities, and program and project management. The field must strive to establish and maintain these competencies in a way that pushes the field forward. For example, VMware system administration and troubleshooting was once considered an IT responsibility, but today it is considered a core competency for many HTM programs and staff.

Certification is another aspect of evaluating competence. As a hiring manager, seeing someone with a specific certification assures me that they have reached a level of competence. This gives me a degree of certainty that they possess the skills for the position I’m recruiting for. Updates to certifications mirror the ongoing transformation and need for competency management in our field.

The AAMI Credentials Institute (ACI) introduced the certified healthcare technology manager certification in 2015, which focuses on managers’ competencies in a multidisciplinary manner. The ACCE Clinical Engineering Certification Study Guide, exam, and oral examination are updated annually to account for field changes and changing proficiencies. ACI is also updating content for study materials and exams for Certified Biomedical Equipment Technician, Certified Radiology Equipment Specialist, and Certified Laboratory Equipment this year and has revamped the continuing education requirements for maintaining certification.

No matter what way you look at it, certification will continue to play a role in the HTM field moving forward. IT-type certifications...
that focus on networking aptitude, cybersecurity, and server and system administration will also persist.

**Capacity: Striking the Right Balance**

Once we have capability and competence, we must also build the capacity to carry out our work in the growing HTM world. Enhancing the aforementioned areas can surely improve efficiency. However, there is a limit to what one individual can do. Historically, biomeds were the go-to problem solvers for hospital staff, which usually meant long hours and sleepless nights. In the “do more with less” paradigm, this mentality is a one-way road to burnout. We need to take a hard look at lean thinking; we need to improve processes and work smarter by using benchmarks to enable long-term success.

HTM also requires building partnerships. Gone are the days when biomeds could toil away in the basement with relative autonomy. The very fabric of the HTM field and the healthcare industry has changed. We are tethered not only to clinical services but to IT and informatics as well. We need to forge the teams, processes, and practices of tomorrow.

We need to have tough conversations about where the scope of HTM ends and other disciplines begin—and we need to be the people driving this change. It can no longer be “us versus them.” The next decade for HTM calls on us to be leaders in our own sphere of influence, to spur continual growth, and to continue to fill in the new gaps in the healthcare delivery support paradigm.

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Congratulations to AAMI on celebrating 50 years of excellence in standards, and fostering the improvement and safety of medical devices.